

Pre-Requisite Modules code(s)	Co-Requisite Modules code(s)	ECTS Credits	Module Code	Module Title
None	None	5	CMPU1012	Information Technology Fundamentals

8.1.3. Information Technology Fundamentals

Module author: Art Sloan, Patricia O'Byrne

Module Description:

This module provides an overview of the discipline of Information Technology (IT) and describes how it relates to other computing disciplines.

Module aim

The aim of this module is to help students understand the diverse contexts in which IT is used and the challenges inherent in the diffusion of this type of technology.

Learning Outcomes:

On completion of this module, the learner will be able to:

- Describe the role of the IT professional as the user advocate.
- Explain data quality and systems security
- Explain how the components of an IT system interrelate.
- Understand the issues of management of complexity in an information technology environment by applying best practices
- Illustrate the use of information and communication technologies to solve problems
- Outline the history of computing technology, the Internet, and the World-Wide Web
- Explain the relationship between IT and related and informing disciplines
- Explain how and to what extent IT has changed various application domains.

Learning and Teaching Methods:

Lectures, self-study, tutorials and any combination of discussion, case study, problem solving exercises, readings, seminars and computer-based learning.

Module content:

- User centeredness and advocacy
- Information assurance and security
- IT systems model
- Management of complexity
- Information and communication technologies: HCI, Networking
- History of computing technology
- Related disciplines: software Engineering, Mathematics and Statistics
- Application domains: science, business, legal issues

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Module Assessment

Methods of assessment to be used to measure the learning outcomes stated above are to be: a written examination and continuous assessment, including one or more of assignment, essay, problem-solving exercise and/or class or lab tests.

Examination: 70%

Continuous Assessment: 30%

Essential Reading:

Parsons, J. and Oja, D. New Perspectives on Computer Concepts 2011, Course Technologies - Cengage Learning, Inc., Kentucky, USA, 2010

Supplemental Reading:

Tajfar, A. Comprehensive Review of Information Technology Fundamentals, Virtualbookworm.com Publishing, Texas, USA

Web references, journals and other:

<http://www.informaworld.com>

Further Details:

One semester, three contact hours per week

Date of Academic Council approval